PLYMOUTH VILLAGE WATER & SEWER DISTRICT

2016 CONSUMER CONFIDENCE REPORT

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PLYMOUTH VILLAGE WATER SYSTEM EPA# 1941010 — WATER QUALITY REPORT

WHAT IS A CONSUMER CONFIDENCE REPORT?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

Plymouth Village Water & Sewer District's complete Water Master Plan is available for review at the District Office (536-1733) located at 227 Old North Main St. It may also be found electronically at the District website: www.pvwsd.com

Introduction

Like any responsible public water system, the District's mission is to provide the highest quality water distribution and treatment possible, while striving to protect the environment and natural resources.

Aging infrastructure presents challenges to drinking water safety, and continuous improvement is needed to maintain the quality of life we desire for today and for the future.

In the past year, the District began implementing short term capital improvements from the 2014 Water System Master Plan.

The water system's 0.5 million gallon (MG) and 2.5 MG storage tanks on Reservoir Rd. were cleaned and inspected in August 2015. The results of the inspection determined that the tanks were in good shape.

In August of 2015 375 LF of 1950's 8" Cast Iron Water Main was replaced on Fairgrounds road in the vicinity of Sewer PS-7.

In August of 2015 Well #2 was cleaned and inspected. Upon inspection it was noted that the 1962 vintage shaft turbine pump and motor were beyond repair.

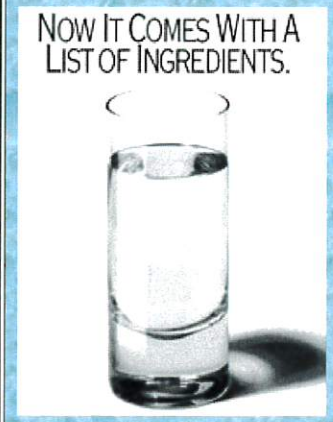
The District choose to rebuild Well #2 with a new 50hp submersible pump, pitless adapter, and well casing that extends above grade to provide a sanitary seal for the well during flooding events. An Ortho/Polyphosphate treatment was put online in May 2016 to sequester Iron and Manganese which are two secondary contaminants that pose aesthetic concerns such as taste, odor, and staining.

The Operators have enhanced the meter replacement program this past year with the focus on replacing 2" or greater meters. This has ensured accurate readings and has saved valuable staff time in the field.

In 2016, the District will make significant electrical and SCADA improvements to the Foster St. Wells and Booster Stations.

The District continues to actively pursue an additional water source. Test wells constructed nearby in Holderness have produced good quality water with yields in the 300 gallons per minute (gpm) range.

These investments, along with on-going operation and maintenance costs are supported by user rates and fees. When considering the high value we all place on water, it is truly a bargain to have water service that protects public health, helps to fights fires, supports businesses and the economy, and provides the high-quality of life we enjoy.



"WHEN THE WELL'S DRY, WE KNOW THE WORTH OF WATER".
- ***BENJAMIN FRANKLIN, POOR RICHARD'S ALMANAC, 1746***

PLYMOUTH'S WATER SOURCE

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

What is the source of my drinking water?

Our water comes from 2 gravel wells located at the end of Foster Street. 100% of the District's Water comes from groundwater, not from surface water such as the Pemigewasset or Baker Rivers. Groundwater is water beneath the land's surface, often located in underground aquifers such where Plymouth's water is derived. Water pumped from this aquifer is treated and distributed through a network of water main lines and is stored in two storage tanks located off Reservoir Road. One tank holds 500,000 gallons and the other holds 2.5 million gallons of water.

How is Plymouth's Water treated?

The water that is pumped from these two gravel packed wells is treated with Sodium Hydroxide (Caustic Soda) to raise the pH of the raw water to reduce the corrosive nature of the water. This helps reduce the leaching of metals such as copper and lead which are found in many plumbing fixtures and home plumbing. Additionally we add Calcium Hypochlorite (Bleach) to disinfect and protect the water system from microbial contamination. In May 2016 the District began a Ortho/ Polyphosphate treatment to sequester Iron & Manganese predominantly found in Well #2.

Why are contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally -occurring or be the result of oil and gas production and mining activities.

Hydrant Flushing & Asset Management GIS Mapping

Safe to Drink

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Do I need to take special precautions? Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Source Water Assessment Summary

NHDES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment, prepared on *(June12, 2001),* are noted below.

(*Gravel Packed Well #1*), (*5*) susceptibility factors were rated high, (*3*) were rated medium, and (*4*) were rated low.

(*Gravel Packed Well #2*), (*5*) susceptibility factors were rated high, (*3*) were rated medium, and (*4*) were rated low.

Note: This information is over (*10*) years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data.

The complete Assessment Report is available for review at Plymouth Village Water & Sewer District offices, 227 Old North Main Street, Plymouth, NH 03264. For more information, contact the water department at 603-536-2769 or visit the DES Drinking Water Source Assessment website at http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm.

Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land."
- ***Luna Leopold***

Foster St. Well #2 Cleaning & inspection

Drinking Water Quality Test Results

Contaminant	Level Detected	Range	MCL	MCLG	Violation (YES/NO)	Likely Source of Contamination
Total Coliform Bacteria	Absent	N/A	PRESENT in 1 sample	0	NO	Naturally Present in the environment
Fluoride	0.16 mg/L average	< 0.1 to 0.21 mg/L	4 mg/L	2 mg/L (SMCL)	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sulfate	16 mg/L average	13 to 19 mg/L	250 mg/L	250 mg/L	NO	Naturally occuring
Radon (2012)	2150 pCi/L average	2100 to 2200 pCi/L	N/A	N/A	NO	Erosion of natural deposits
Barium	0.028 mg/L average	0.009 to 0.047 mg/L	2 mg/L	1 mg/L	NO	Geological; oil/gas drilling, painting, industrial waste
Iron	1.0 mg/L average	< 0.05 to 1.9 mg/L	0.3 mg/L (SMCL)	0.3 mg/L	NO	Geological
Manganese	0.13 mg/L average	0.088 to 0.18 mg/L	0.05 mg/L (SMCL)	0.05 mg/L	NO	Geological
Nickel	0.002 mg/L average	0.001 to 0.002 mg/L	N/A	N/A	NO	Geological; electroplating, battery production, ceramics
Sodium	60 mg/L average	9 to 110 mg/L	250 mg/L (SMCL)	250 mg/L	NO	Road salt, septic systems (salt from water softeners)
Zinc	0.014 mg/L average	0.008 to 0.020 mg/L	5 mg/L (SMCL)	5 mg/L	NO	Galvanized pipes
Lead (2014)	0.013 mg/L at the 90th Percentile	< 0.001 to 0.061 mg/L	AL = 0.015 mg/L (Trigger exceeded at 90%)	0.015 mg/L	NO	Corrosion of household plumbing systems; erosion of natural deposits
Copper (2014)	0.32 mg/L at the 90th Percentile	0.019 to 0.73 mg/L	AL = 1.3 mg/L (Trigger exceeded at 90%)	1.3 mg/L	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Chloride	124 mg/L average	15 to 170 mg/L	250 mg/L (SMCL)	250 mg/L	NO	Wastewater, road salt, water softeners, corrosion
Chlorine	0.38 mg/L average	0.17 to 0.60 mg/L	4.0 mg/L (MRDL)	4.0 mg/L (MRDLG)	NO	Water Additive used to control microbes
Haloacetic Acids (HAA5) (2014)	Average at Walmart Booster Station and Langdon St. = 0.9 ug/L	ND to 1.2 ug/L	MCL = 60 ug/L	N/A	NO	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (Bromodichlor-omethane, Bromoform, Dibromo-metha-ne, Chloroform) (2014)	Average at Walmart Booster Station and Langdon St. = 5.8 ug/L	5.2 to 6.2 ug/L	MCL= 80 ug/L (combined)	NA	NO	By-product of drinking water disinfection

Water Quality Test Results

The results for detected contaminants listed on the previous page are from the most recent monitoring done in compliance with regulations ending with the year 2015. Results prior to 2015 will include the year the sample was taken. The State of New Hampshire allows water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Thus some of the data present, though representative, may be more than one year old.

Violations

	Date of Violation	Explanation of Violation	Lengeth of Violation	Corrective Action	Likely Source of Contamination
NON-ACUTE MCL	NONE	-	-	-	-
MONITORING and REPORTING	NONE	-	-	-	-

Definitions

Action Level or **AL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level or **MCL**: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or **MCLG:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level or **MRDL:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or **MRDLG:** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

90th Percentile: The value for which 90% of all the data points are smaller.

SMCL: The level of a contaminant that causes unpleasant tastes, odors, and colors. SMCL's are for contaminants that will not cause adverse health effects and are used as guidelines, not enforceable limits.

Abbreviations:

(XXXX): Year Samples Collected

ND: Not Detectable at testing limits

<: Less Than

mg/L: milligrams per Liter

ug/L: micrograms per liter

N/A: Not Applicable

pCi/L: picoCurie per Liter

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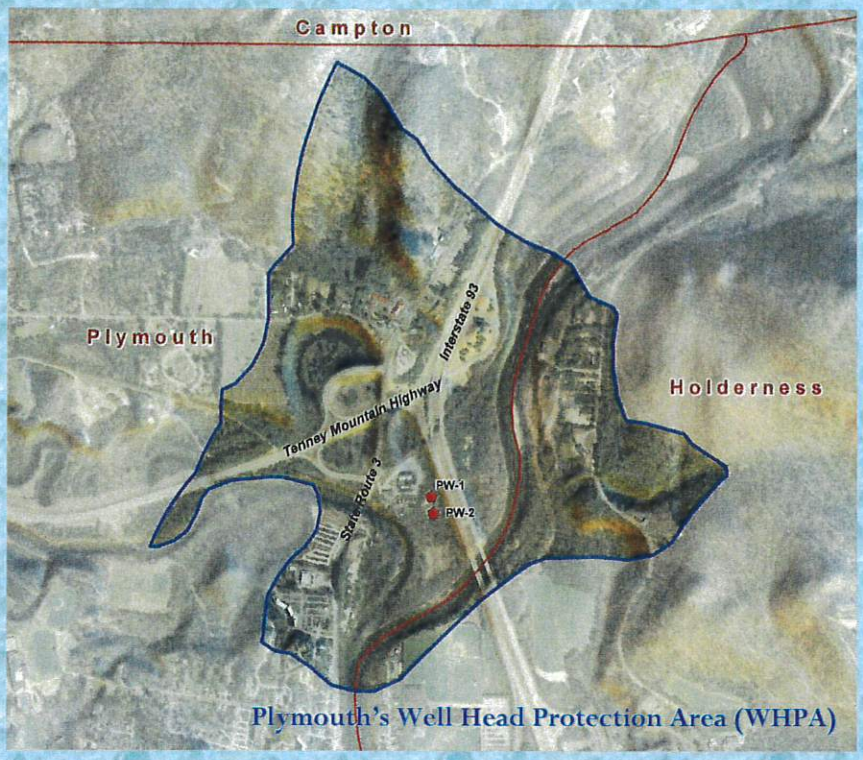

Plymouth's Well Head Protection Area (WHPA)

HOW CAN I GET INVOLVED?

If you have any questions about this report or concerning your drinking water, please call Plymouth Village Water & Sewer District Office at 603-536-1733 or visit our website at (www.pvwsd.com) or contact Jason Randall, the Water & Sewer Superintendent at 603-536-2769 or through email at Randall.PVWSD@gmail.com.

Feel free to call with any questions you may have. Commission meetings are normally held on the second and fourth Tuesdays of each month, but the schedule varies. Please check the website at www.PVWSD.com for currently posted meetings.


Relocating a hydrant on Weeks St.


Repairing a leak on Stoney Brook Rd.